

## CLAIMS

1. Use of a cyclopentenone prostaglandin in the manufacture of a medicament for delaying the onset and/or preventing the continuation of labour in a female.
2. Use of a cyclopentenone prostaglandin in the manufacture of a medicament for preventing and/or reducing an inflammatory response in the reproductive system of a female.
3. A use according to Claim 2 wherein the female is pregnant.
4. A use according to Claim 1 or 3 wherein the female is human and the duration of pregnancy is more than approximately 13 weeks.
5. A use according to Claim 4 wherein the duration of pregnancy is approximately between 20 and 32 weeks.
6. A use according to any preceding claim wherein the medicament reduces and/or prevents an inflammatory response in the reproductive system of a female associated with the onset or continuation of labour.
7. A use according to any preceding claim wherein the medicament reduces and/or prevents an inflammatory response in the reproductive system of a female associated with infection by a pathogenic agent.
8. A use according to Claim 7 wherein the pathogenic agent is viral, bacterial or fungal.

9. A use according to Claim 6 wherein the inflammatory response is activated by stretch of the uterus.
10. A use according to any preceding claim wherein the medicament reduces and/or prevents one or more of the following conditions: pre-term labour; pathogenic infection; cervical ripening, uterine contractions.
11. A use according to any preceding claim wherein the medicament reduces and/or prevents fetal or neonatal damage.
12. A use according to Claim 11 wherein the fetal or neonatal damage is brain damage.
13. A use according to Claim 12 wherein the fetal or neonatal damage is one or more of the following conditions: astrogliosis; loss of myelin-producing oligodendrocytes; multifocal necroses resulting in cystic change (periventricular leucomalacia, PVL).
14. A use according to any preceding claim wherein the cyclopentenone prostaglandin is 15-deoxy- $\Delta^{12,14}$ -prostaglandin  $J_2$  and/or prostaglandin  $A_1$  and/or is a prodrug of 15-deoxy- $\Delta^{12,14}$ -prostaglandin  $J_2$  and/or prostaglandin  $A_1$ .
15. A use according to Claim 14 wherein the prodrug is  $PGD_2$  or  $PGE_1$ .
16. A use according to any preceding claim wherein the medicament further comprises a pharmaceutically acceptable excipient, diluent or carrier.

17. A use according to any preceding claim wherein the medicament is in a form adapted for delivery by mouth.
18. A use according to any preceding claim wherein the medicament is in a form adapted for delivery by intravenous injection.
19. A use according to any preceding claim wherein the medicament is in a form adapted for delivery by intra-amniotic injection.
20. A use according to any preceding claim wherein the medicament is in a form which is compatible with the amniotic fluid.
21. A use according to any preceding claim wherein the medicament further comprises an agent for treating a female who has or is at risk of one or more of the following conditions: pre-term labour; pathogenic infection; cervical ripening, uterine contractions.
22. A use according to Claim 21 wherein the agent is a corticosteroid.
23. A use according to Claim 21 or 22 wherein the agent is capable of preventing and/or reducing respiratory distress syndrome in the neonate.
24. A use according to Claim 23 wherein the agent is selected from dexamethasone or betamethasone.
25. A use according to Claim 21 wherein the condition is preterm labour and the agent is capable of delaying delivery.
26. A use according to Claim 21 wherein the condition is uterine contractions and the agent is a tocolytic agent.

27. A use according to Claim 26 wherein the tocolytic agent is selected from oxytocin receptor antagonists, calcium channel blockers, sympathomimetics, nitric oxide donors.
28. A use according to Claim 27 wherein the oxytocin receptor antagonist is Atosiban.
29. A use according to Claim 27 wherein the calcium channel blocker is Nifedipine.
30. A use according to Claim 27 wherein the sympathomimetic is Ritodrine.
31. A use according to Claim 27 wherein the nitric oxide donor is glyceryl trinitrate.
32. A use according to any preceding claim wherein the inflammatory response is mediated by NF $\kappa$ B in uterine cells.
33. A use according to Claim 32 wherein the cyclopentenone prostaglandin is capable of inhibiting and/or reducing NF $\kappa$ B activity by preventing and/or reducing NF $\kappa$ B DNA-binding in uterine cells.
34. A use according to Claim 33 wherein the cyclopentenone prostaglandin is capable of inhibiting and/or reducing NF $\kappa$ B activity by preventing and/or reducing NF $\kappa$ B-mediated transcriptional regulation in uterine cells.

35. A use according to Claim 34 wherein the cyclopentenone prostaglandin is capable of inhibiting and/or reducing NF $\kappa$ B activity by preventing and/or reducing NF $\kappa$ B production in uterine cells.
36. A pharmaceutical composition comprising a cyclopentenone prostaglandin and a pharmaceutically acceptable carrier or excipient, the cyclopentenone prostaglandin being present in an amount effective to prevent and/or reduce an inflammatory response in the reproductive system of a female.
37. A method of treating inflammation within the reproductive system of a female, the method comprising administering an effective amount of a medicament as defined in any one of the preceding claims to a subject in need thereof.
38. A method for identifying a cyclopentenone prostaglandin for delaying the onset and/or preventing the continuation of labour in a female comprising the step of testing the cyclopentenone prostaglandin to determine if it is capable of inhibiting and/or reducing NF $\kappa$ B activity in uterine cells in a PPAR- $\gamma$  independent manner.
39. A method for making a pharmaceutical composition for use in delaying the onset and/or preventing the continuation of labour in a female comprising providing a cyclopentenone prostaglandin identified by the method of Claim 38 and combining it with a pharmaceutically acceptable carrier.